

EXHIBIT 68

REDACTED



Privacy & Compliance

The Google Advertising Ecosystem



Privacy GTM

Last Updated: May 2021

go/GoogleAdvertisingEcosystem

[Video of original presentation @ NYC Platforms/LCS CSE Onsite \(2019-04-17\)](#)

(slides in video are slightly different than current presentation)

Goal

- Understand the Programmatic Ads Ecosystem & Associated Players



Quick show of hands, 1 to 5, how well do you feel you know this?

Hopefully, we can raise the average by a point or two.



Complex

...but explainable?

We'll see...

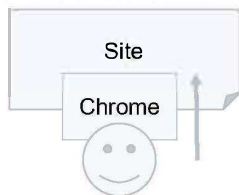
Comes down to two sides...

Just do WHO and WHAT

GA360 (recently brought under the GMP umbrella): critically important for measurement and analytics. However, I do not have a slide on it.

The very basics of a programmatic ad buy

1. User visits website; Chrome loads HTML



2. As Ad Slot is loaded, Authorized Buyers tag recognizes oppty to sell ad; prepares "bid request"



3. Authorized Buyers reads information from Chrome+Device+Pub+other info; writes to [bid request](#)

User Information (Serving the ad to WHOM?)

- google_user_id: alkvv3909vusalkdfjlskvc
- FLOC:
- IP: 123.3XX.XXXX
- User_agent: Chrome/51.0.2704.103
- Geo: (Hyperlocal/Lat-Long/etc)
- Device: (Type/Brand/Model/WxH/OSv/ATT)
- +More!

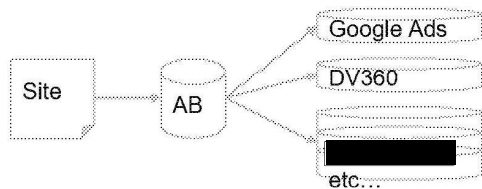
Publisher Information (Serving the ad in what CONTEXT?)

- Publisher_ID: pub-123553453
- URL: http://sdsikvj.com
- Detected_Language: EN-US
- Is_app: (Y/N)
- Is_video: (Y/N)
- +More!



The very basics of a programmatic ad buy

4. AB Tag sends Bid Request to all buyers registered on Authorized Buyers Exchange



5. Each DSP runs the details of the bid request through an algorithm to prepare a Bid Response (most importantly, bid value in \$)



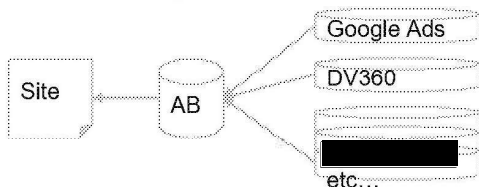
Basically, checking: for THIS IMPRESSION (User x Context), do they have any DEMAND that's targeting it, and what's the likelihood of successful INTERACTION?

Ad Value = (Value of Action) x (Chance of Action)



The very basics of a programmatic ad buy

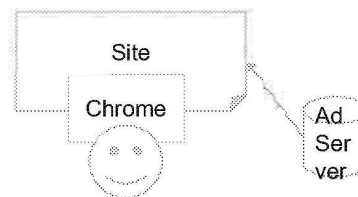
6. Buyers send bid requests back to Authorized Buyers, which picks the winner and delivers the URL of the ad image server to the site



AB Operation:

- List bid values
- Sort High->Low
- Check for exclusions
- Deliver winner info to publisher page

7. Ad is served on page to user in Chrome



... This process all takes place in less than 100 milliseconds!

Now you know some important players:

- Buyers (DSPs)
- Publishers
- Exchanges
- Servers

... What about other players?

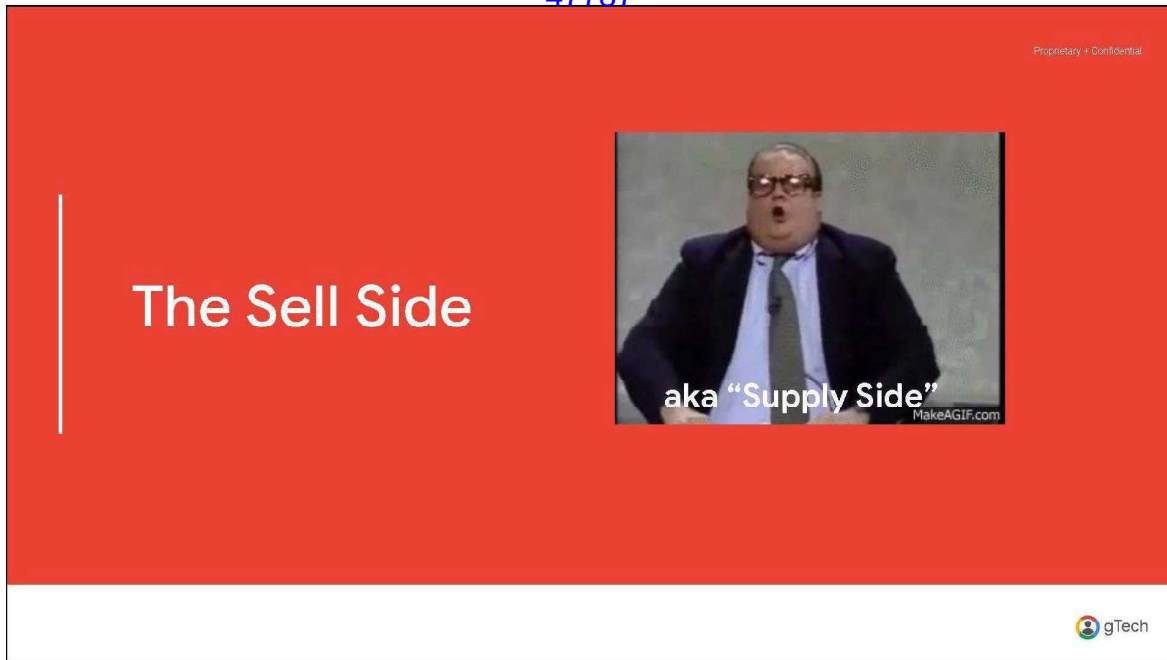


The very basics of a programmatic ad buy

A simple way to understand OTHER programmatic / ad tech players is to think about how they impact the above process:

- Players who HELP BUYERS to calculate the VALUE of a BID (and all leverage 3pc)
 - Bid = (value of action) x (chance of action)
 - How do you understand "Chance of Action"?
 - One way: RELEVANCY TO THE USER -> to get this you have to UNDERSTAND THE USER
 - Large chunk of ecosystem is devoted to collecting/storing/analyzing data pertaining to the user (identified by google_user_id)
 - DMPs (Data Management Platforms) / CDPs (Customer Data Platforms)
 - Third party data providers / Data brokers
 - Data Onboarders
 - Another way: RELEVANCY OF CONTEXT -> to get this you have to UNDERSTAND AD CONTEXT
 - Is it viewable? Is it likely to be fraud?
 - Verification vendors such as [REDACTED] etc.





Much simpler than the buy side